UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE : February 8, 2012

SUBJECT: Region III Data QA Review

FROM: Colleen Walling
Region III ESAT RPO (3EA20)

TO: Rich Fetzer
Remedial Project Manager (3HS31)

Attached is the inorganic data validation report for the Dimock Residential Groundwater site (Case #: 180-3644-1) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2763.

Attachment

TO: #0037 TDF: #02025A

cc: Gene Nance (Techlaw)
Suddha Graves (Techlaw)

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Lockheed Martin IS&GS – Civil
Energy & Environment
ESAT Region 3
US EPA Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Ex. 4 - CBI

DATE: February 7, 2012

SUBJECT: Level IM2 Inorganic Data Validation for Project 180-3644-1
SDG: H-1
Site: Dimock

FROM: Ex. 4 - CBI
Senior Data Reviewer

Through: Ex. 4 - CBI
Senior Data Review Chemist

TO: Colleen Walling
ESAT Region 3 Project Officer

OVERVIEW

Project 180-3644-1, Sample Delivery Group (SDG) H-1, from the Dimock site consisted of eleven (11) aqueous samples analyzed for total metals by ICP-MS and for mercury (Hg) by cold vapor technique and eleven (11) filtrate samples analyzed for dissolved metals by ICP-MS and for dissolved mercury (Hg) by cold vapor technique. All samples were submitted to Test America Laboratories Pittsburg (TALP). Samples were analyzed for metals and mercury (Hg) in accordance with EPA Methods 6020 and 7470, respectively.

SUMMARY

Data were validated according to the Region 3 Modifications to the National Functional Guidelines for Inorganic Data Review, level IM2 and is assigned the Superfund Data Validation Label S4VM (Stage_4_Validation_Manual). Areas of concern with respect to data usability are listed below.

Data in this Case have been impacted by outliers present in the laboratory blanks as well as the ICP serial dilution analyses. Details for these outliers are discussed under "Minor Problems", specific samples affected are outlined in "Table 1A" and qualified analytical results for all samples are summarized on the Data Summary Forms (DSFs).

MINOR PROBLEMS

Method (MB) and Continuing Calibration (CCB) Blanks had reported results greater than the Method Detection Limits (MDLs) as listed below. Positive results reported for these analytes, which were less than five times (< 5X) the blank concentration, may be biased high and have been qualified "B" on the DSFs.

Total Metals:

Blank	Analytes
CCB	manganese (Mn), molybdenum (Mo), antimony (Sb)
MB	aluminum (Al), arsenic (As), boron (B), chromium (Cr), copper (Cu), Iron (Fe), potassium (K), nickel (Ni), selenium (Se), vanadium (V)

Dissolved Metals:

Blank	Analytes
CCB	Al, cobalt (Co), Mn, Sb, thallium (Tl)
MB	silver (Ag), barium (Ba), B, beryllium (Be), Cr, Cu, Fe, lead (Pb), Mo, V, zinc (Zn)

In the total metals analyses, Percent Differences (%Ds) for the ICP serial dilution analysis were outside the control limit (>10%) for B, magnesium (Mg) and Mn. Positive results for these analytes in affected samples in this matrix are estimated and have been qualified "J" on the DSFs unless superseded by "B".

NOTES

Positive results which are less than the Reporting Limits (RLs) but greater than MDLs have been qualified "J" on the DSFs unless superseded by "B".

Matrix spike, matrix spike duplicate and ICP serial dilution were performed for both total and dissolved samples. Data were qualified accordingly.

In the total metal analyses, several analyte concentrations reported on Form 8 - IN (ICP Serial Dilution) did not match the initial sample results as reported on the Form Is. This from was corrected and the Percent Differences (%Ds) were recalculated by the reviewer. Data were qualified based on the corrected %Ds.

The requirement for ICP-MS and cold vapor MDLs to be performed within one (1) year of sample analysis was not met by the laboratory. No action was taken by the reviewer based on these findings.

ATTACHMENTS

INFORMATION REGARDING REPORT CONTENT

TABLES 1A	SUMMARY OF QUALIFIERS ON DATA SUMMARY FORMS AFTER DATA VALIDATION
TABLE 1B	CODES USED IN COMMENTS COLUMN OF TABLES 1A
APPENDIX A	GLOSSARY OF DATA QUALIFIER CODES
APPENDIX B	DATA SUMMARY FORM(S)
APPENDIX C	CHAIN OF CUSTODY RECORD(S)
APPENDIX D	LABORATORY CASE NARRATIVE(S)

DCN: Project 180-3644-1IM2

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

PROJECT: 180-3644-1
SDG#: H-1
TOTAL METALS

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Al	H-1, FH-1, FPT-1, KDE-1, D-1	B		High	MB (2.95 J µg/L)
As	H-1, FH-1, FPT-1, R-1, R-2, RD-1, RU-1, KDE-1, D-1	B		High	MB (0.424 J µg/L)
B	All Samples Except D-1	J			ISD (42%)
	D-1	B			MB (1.91 J µg/L) ISD (42%)
Cr	All Samples	B			MB (1.64 J µg/L)
Cu	H-1, FH-1, R-1, R-2, RD-1, RU-1, N-1, D-1	B		High	MB (0.720 J µg/L)
Fe	FPT-1, RD-1, RU-1, KDE-1, N-1, D-1	B		High	MB (18.2 J µg/L)
K	N-1	B			MB (41.2 J µg/L)
Mg	All Samples	J			ISD (22%)
Mn	All Samples Except N-1, D-1	J			ISD (33%)
	N-1, D-1	B			CCB (0.0590 J µg/L) ISD (33%)

* See explanation of Comments on Table 1B.

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

PROJECT: 180-3644-1
SDG#: H-1
TOTAL METALS

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Ni	H-1, FH-1, FPT-1, R-1, R-2, RD-1, RU-1	B		High	MB (0.532 J µg/L)
Mo	H-1, FPT-1, S-1, R-1, R-2, RD-1, KDE-1	B		High	CCB (0.503 J µg/L)
Sb	All Samples	B		High	CCB (0.704 J µg/L)
Se	All Samples	B		High	MB (1.72 J µg/L)
V	FPT-1, R-1, RD-1 D-1	B		High	MB (0.492 J µg/L)

* See explanation of Comments on Table 1B

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

PROJECT: 180-3644-1
SDG#: H-1
DISSOLVED METALS

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Ag	H-1, FH-1	B		High	MB (0.0820 J µg/L)
Al	H-1, FH-1, S-1, R-2, RD-1, RU-1, KDE-1	B		High	CCB (5.98 J µg/L)
Ba	N-1, D-1	B		High	MB (0.752 J µg/L)
B	FH-1, RD-1, RU-1, N-1, D-1	B			MB (3.03 J µg/L)
Be	S-1	B		High	MB (0.0370 J µg/L)
Co	FH-1, FTP-1, S-1, R-1, R-2, RD-1	B			CCB (0.0430 J µg/L)
Cr	All Samples	B			MB (1.45 J µg/L)
Cu	All Samples Except, FPT-1	B		High	MB (0.644 J µg/L)
Fe	H-1, FH-1, FPT-1, R-2	B		High	MB (19.3 J µg/L)
Mn	H-1, FPT-1, S-1, RD-1, RU-1, N-1, D-1	B			CCB (0.409 J µg/L)
Pb	All Samples	B			MB (0.0690 J µg/L)
Mo	H-1, FH-1, FPT-1, S-1, R-1, R-2	B			MB (0.907 J µg/L)

* See explanation of Comments on Table 1B.

TABLE 1A
SUMMARY OF QUALIFIERS ON DATA SUMMARY FORM AFTER DATA VALIDATION

PROJECT: 180-3644-1
SDG#: H-1
DISSOLVED METALS

ANALYTE	SAMPLES AFFECTED	POSITIVE VALUES	NON-DETECTED VALUES	BIAS	COMMENTS*
Sb	All Samples	B		High	CCB (1.18 J µg/L)
Tl	All Samples Except KDE-1, D-1	B		High	CCB (0.0500 J µg/L)
V	FPT-1, S-1, RU-1	B		High	MB (0.119 J µg/L)
Zn	H-1, FH-1, R-1, RD-1, RU-1, KDE-1 N-1, D-1	B			MB (1.74 J µg/L)

* See explanation of Comments on Table 1B.

TABLE 1B
CODES USED IN COMMENTS COLUMN

MB = Method blanks (MBs) had results greater than the MDLs (results are in parenthesis). Positive results less than five times (<5X) the value of the blank may be biased high.

ISD = Percent Differences (%Ds) for the ICP serial dilution analyses exceeded the control limit (10%) [% Ds are in parenthesis]. Reported results are estimated.

CCB = Continuing calibration blanks (CCBs) had results greater than the MDLs (results are in parenthesis). Positive results less than five times (<5X) the value of the blank may be biased high.

APPENDIX A

Glossary of Qualifier Codes

GLOSSARY OF DATA QUALIFIER CODES (INORGANIC)

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of analytes):

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

(NO CODE) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. 'Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present.
Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J = Analyte Present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low.
Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

Q = No analytical result.

APPENDIX B

Data Summary Forms

Project #: 180-3644-1 SDG: H-1 Number of Soil Samples : 0
Site : DIMOCK Number of Water Samples : 11
Lab. : TALP

TOTAL METALS

Sample Number:		H-1		FH-1		FPT-1		S-1		R-1	
Station Location:		H-1		FH-1		FPT-1		S-1		R-1	
Laboratory ID:		180-3644-1		180-3644-2		180-3644-3		180-3644-4		180-3644-5	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		µg/L		µg/L		µg/L		µg/L		µg/L	
Date Sampled :		9/01/2011		9/01/2011		9/01/2011		9/01/2011		9/01/2011	
Time Sampled :		11:15		08:40		9:35		10:15		13:20	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
ANALYTE	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
SILVER	1.0							0.058	J		
ALUMINUM	30	6.8	B	14	B	3.4	B	4200		21	J
ARSENIC	1.0	1.2	B	1.7	B	1.7	B	7.2		1.6	B
BARIUM	10	140		120		260		230		650	
BORON	5.0	46	J	27	J	35	J	30	J	42	J
BERYLLIUM	1.0							0.24	J		
CALCIUM	100	4400		37000		41000		30000		25000	
CADMIUM	1.0										
COBALT	0.50			0.19		0.082	J	3.1		0.10	J
CHROMIUM	2.0	2.2	B	2.3	B	2.3	B	3.9	B	2.2	B
COPPER	2.0	1.5	B	2.5	B	7.2		27		1.4	B
IRON	50	250		110		22	B	5000		1600	
POTASSIUM	100	1900		1000		1400		2600		1400	
MAGNESIUM	100	1200	J	8700	J	8700	J	7100	J	8100	J
MANGANESE	0.50	1.8	J	95	J	1.4	J	200	J	72	J
SODIUM	100	16000		10000		10000		8600		12000	
NICKEL	1.0	0.66	B	0.50	B	0.49	B	4.2		0.73	B
LEAD	1.0	0.078	J	1.5		0.31	J	10		0.25	J
MOLYBDENUM	5.0	0.60	B	6.3		1.5	B	1.2	B	1.6	B
ANTIMONY	2.0	0.094	B	0.12	B	0.091	B	1.9	B	0.31	B
SELENIUM	5.0	2.0	B	1.5	B	1.6	B	1.2	B	0.71	B
THALLIUM	1.0			0.27	J	0.12	J	0.078	J		
VANADIUM	1.0					0.86	B	5.0		0.40	B
ZINC	5.0	10		24		7.7		140		8.5	
MERCURY	0.20										

RL = Reporting Limit SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor) Revised 09/99

Project #: 180-3644-1 SDG: H-1
Site : DIMOCK
Lab. : TALP

TOTAL METALS

Sample Number:		R-2		RD-1		RU-1		KDE-1		N-1	
Station Location:		R-2		RD-1		RU-1		KDE-1		N-1	
Laboratory ID:		180-3644-6		180-3644-7		180-3644-8		180-3644-9		180-3644-10	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		µg/L		µg/L		µg/L		µg/L		µg/L	
Date Sampled :		9/01/2011		9/01/2011		9/01/2011		9/01/2011		9/01/2011	
Time Sampled :		13:40		14:10		14:45		15:35		17:45	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
ANALYTE	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
SILVER	1.0										
ALUMINUM	30	23	J	33		32		7.6	B	24	J
ARSENIC	1.0	1.1	B	0.78	B	0.52	B	0.67	B		
BARIUM	10	640		33		33		100		0.12	J
BORON	5.0	41	J	14	J	15	J	180	J	8.4	J
BERYLLIUM	1.0										
CALCIUM	100	26000		9300		9400		1500		11000	
CADMIUM	1.0										
COBALT	0.50	0.098	J								
CHROMIUM	2.0	1.2	B	1.2	B	1.1	B	1.3	B	1.3	B
COPPER	2.0	2.2	B	0.90	B	1.0	B	4.2		0.33	B
IRON	50	1400		40	B	36	B	15	B	11	B
POTASSIUM	100	1400		1400		1400		1500		70	B
MAGNESIUM	100	8100	J	1900	J	1900	J	160	J	3800	J
MANGANESE	0.50	74	J	3.1	J	20	J	2.4	J	0.056	B
SODIUM	100	12000		5500		5500		100000		9600	
NICKEL	1.0	0.38	B	0.21	B	0.25	B				
LEAD	1.0	0.58	J	0.055	J	0.064	J	0.080	J		
MOLYBDENUM	5.0	1.2	B	0.22	B			0.33	B		
ANTIMONY	2.0	0.16	B	0.14	B	0.084	B	0.058	B	0.19	B
SELENIUM	5.0	1.0	B	1.3	B	1.2	B	0.93	B	1.1	B
THALLIUM	1.0										
VANADIUM	1.0			0.44	B						
ZINC	5.0	56		1.3	J	1.9	J	2.2	J		
MERCURY	0.20										

RL = Reporting Limit
SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor)
Revised 09/99

Project #: 180-3644-1

SDG: H-1
Site : DIMOCK
Lab. : TALP

TOTAL METALS

Sample Number:		D-1									
Station Location:		D-1									
Laboratory ID:		180-3644-11									
Field QC:											
Matrix :		Water									
Units :		µg/L									
Date Sampled :		9/01/2011									
Time Sampled :		18:15									
Dilution Factor :		1.0									
ANALYTE	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
SILVER	1.0										
ALUMINUM	30	2.7	B								
ARSENIC	1.0	0.73	B								
BARIUM	10	0.15	J								
BORON	5.0	5.0	B								
BERYLLIUM	1.0										
CALCIUM	100	250									
CADMIUM	1.0										
COBALT	0.50										
CHROMIUM	2.0	1.3	B								
COPPER	2.0	0.31	B								
IRON	50	13	B								
POTASSIUM	100	3100									
MAGNESIUM	100	3000	J								
MANGANESE	0.50	0.054	B								
SODIUM	100	1600									
NICKEL	1.0										
LEAD	1.0										
MOLYBDENUM	5.0										
ANTIMONY	2.0	0.15	B								
SELENIUM	5.0	0.60	B								
THALLIUM	1.0										
VANADIUM	1.0	0.24	B								
ZINC	5.0	3.4	J								
MERCURY	0.20										

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL * Dilution Factor)

Revised 09/99

Project #: 180-3644-1 SDG: H-1
Site : DIMOCK
Lab. : TALP

DISSOLVED METALS

Sample Number:		H-1		FH-1		FPT-1		S-1		R-1	
Station Location:		H-1		FH-1		FPT-1		S-1		R-1	
Laboratory ID:		180-3644-1		180-3644-2		180-3644-3		180-3644-4		180-3644-5	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		µg/L		µg/L		µg/L		µg/L		µg/L	
Date Sampled :		9/01/2011		9/01/2011		9/01/2011		9/01/2011		9/01/2011	
Time Sampled :		11:15		08:40		9:35		10:15		13:20	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
ANALYTE	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
SILVER	1.0	0.065	B	0.042	B						
ALUMINUM	30	3.6	B	4.1	B			3.8	B		
ARSENIC	1.0	0.82	J	0.85	J			1.1		1.0	
BARIUM	10	120		110		230		150		580	
BORON	5.0	36		13	B	230		29		38	
BERYLLIUM	1.0							0.059	B		
CALCIUM	100	3900		35000		37000		29000		23000	
CADMIUM	1.0										
COBALT	0.50			0.039	B	0.090	B	0.056	B	0.097	B
CHROMIUM	2.0	1.9	B	1.6	B	1.9	B	2.0	B	1.8	B
COPPER	2.0	1.2	B	1.3	B	5.6		2.2	B	1.1	B
IRON	50	21	B	7.4	B	50	B				
POTASSIUM	100	1600		980		1500		1100		1300	
MAGNESIUM	100	1000		7700		7400		5900		7000	
MANGANESE	0.50	0.68	B	3.4		0.37	B	0.19	B	68	
SODIUM	100	14000		9600		10000		8700		11000	
NICKEL	1.0							0.19	J	0.17	J
LEAD	1.0	0.045	B	0.077	B	0.098	B	0.029	B	0.030	B
MOLYBDENUM	5.0	3.7	B	1.4	B	1.5	B	0.90	B	1.0	B
ANTIMONY	2.0	0.55	B	0.27	B	0.30	B	0.18	B	0.070	B
SELENIUM	5.0	0.53	J								
THALLIUM	1.0	0.14	B	0.073	B	0.11	B	0.10	B	0.043	B
VANADIUM	1.0					0.21	B	0.33	B		
ZINC	5.0	3.9	B	8.3	B	13		48		3.4	B
MERCURY	0.20										

RL = Reporting Limit
SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits: (RL * Dilution Factor)
Revised 09/99

Project #: 180-3644-1 SDG: H-1
Site : DIMOCK
Lab. : TALP

DISSOLVED METALS

Sample Number:		R-2		RD-1		RU-1		KDE-1		N-1	
Station Location:		R-2		RD-1		RU-1		KDE-1		N-1	
Laboratory ID:		180-3644-6		180-3644-7		180-3644-8		180-3644-9		180-3644-10	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		µg/L		µg/L		µg/L		µg/L		µg/L	
Date Sampled :		9/01/2011		9/01/2011		9/01/2011		9/01/2011		9/01/2011	
Time Sampled :		13:40		14:10		14:45		15:35		17:45	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
ANALYTE	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
SILVER	1.0										
ALUMINUM	30	11	B	6.1	B	7.4	B	4.3	B		
ARSENIC	1.0	1.2		0.40	J	0.78	J	0.49	J		
BARIUM	10	560		30		32		86		0.16	B
BORON	5.0	36		11	B	13	B	160		7.3	B
BERYLLIUM	1.0										
CALCIUM	100	23000		8600		8800		1400		11000	
CADMIUM	1.0										
COBALT	0.50	0.071	B	0.032	B						
CHROMIUM	2.0	1.6	B	1.0	B	1.2	B	1.2	B	1.6	B
COPPER	2.0	0.91	B	1.6	B	1.7	B	2.3	B	1.2	B
IRON	50	14	B								
POTASSIUM	100	1300		1300		1300		1300		200	
MAGNESIUM	100	6800		1700		1700		170		3500	
MANGANESE	0.50	67		0.27	B	1.5	B	3.0		0.13	B
SODIUM	100	11000		5500		5600		90000		9600	
NICKEL	1.0	0.25	J							0.69	J
LEAD	1.0	0.10	B	0.029	B	0.050	B	0.074	B	0.036	B
MOLYBDENUM	5.0	0.95	B								
ANTIMONY	2.0	0.12	B	1.2	B	0.40	B	0.28	B	0.30	B
SELENIUM	5.0	0.44	J			0.43	J				
THALLIUM	1.0	0.050	B	0.025	B	0.020	B			0.015	B
VANADIUM	1.0					0.50	B				
ZINC	5.0	9.1		3.0	B	4.8	B	3.8	B	3.4	B
MERCURY	0.20										

RL = Reporting Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL * Dilution Factor)

Revised 09/99

Project #: 180-3644-1

SDG: H-1
Site : DIMOCK
Lab. : TALP

DISSOLVED METALS

Sample Number:		D-1									
Station Location:		D-1									
		180-3644-11									
Matrix :		Water									
Units :		µg/L									
Date Sampled :		9/01/2011									
Time Sampled :		18:15									
Dilution Factor :		1.0									
ANALYTE	RL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
SILVER	1.0										
ALUMINUM	30										
ARSENIC	1.0										
BARIUM	10	0.18	B								
BORON	5.0	3.0	B								
BERYLLIUM	1.0										
CALCIUM	100	400									
CADMIUM	1.0										
COBALT	0.50										
CHROMIUM	2.0	1.5	B								
COPPER	2.0	1.1	B								
IRON	50										
POTASSIUM	100	2900									
MAGNESIUM	100	2700									
MANGANESE	0.50	0.16	B								
SODIUM	100	1600									
NICKEL	1.0										
LEAD	1.0	0.037	B								
MOLYBDENUM	5.0										
ANTIMONY	2.0	0.21	B								
SELENIUM	5.0	0.59	J								
THALLIUM	1.0										
VANADIUM	1.0										
ZINC	5.0	3.1	B								
MERCURY	0.20										

RL = Reporting Limit

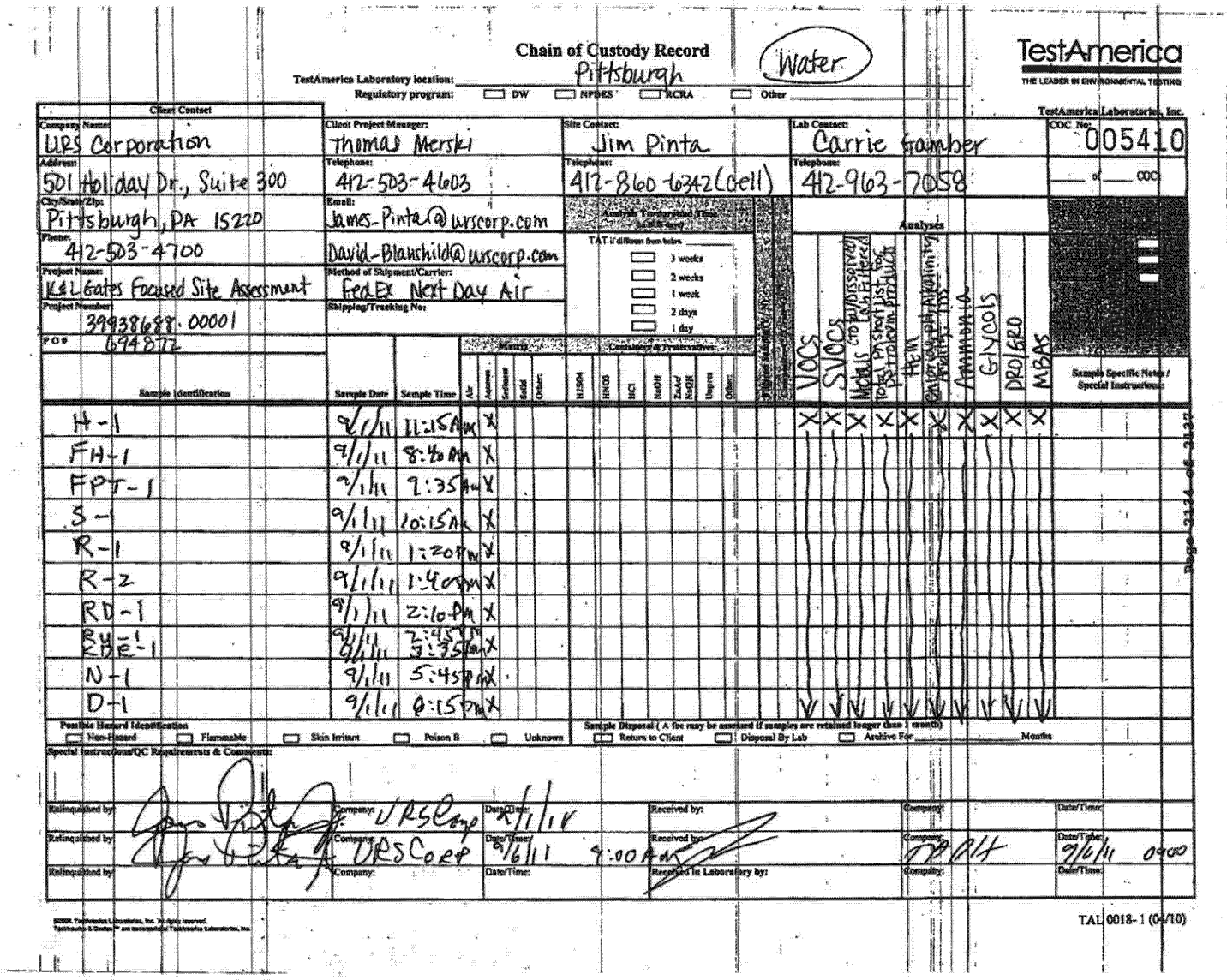
SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (RL * Dilution Factor)

Revised 09/99

APPENDIX C

Chain of Custody (COC) Records



Chain of Custody Record

TestAmerica Laboratory location: Pittsburgh (Water)

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica — THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

COC No: 005410 — of — COC

Client Contact

Company Name: URS Corporation	Client Project Manager: Thomas Mersky	Site Contact: Jim Pinta	Lab Contact: Carrie Gamber
Address: 501 Holiday Dr., Suite 300	Telephone: 412-503-4603	Telephone: 412-860-6342 (cell)	Telephone: 412-963-7058
City/State/Zip: Pittsburgh, PA 15220	Email: James.Pinta@urscorp.com	Analysis Turnaround Time: CALENDAR DAYS	
Phone: 412-503-4700	David.Blanchild@urscorp.com	TAT if different from below: ☐ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day	
Project Name: K&L Gates Focused Site Assessment	Method of Shipment/Carrier: FedEx Next Day Air		
Project Number: 39938688.00001	Shipping/Tracking No:		
PO# 694872			

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	MS/MSD (Y/N)	VOCs	SVOCs	Metals (incl dissolved Ca, Fe, Mn, Mg, K, Na) Filtered for preserved groundwater	PCBs, Pesticides, Herbicides	TPH-GRO (Gasoline Range Organics)	TPH-DRO (Diesel Range Organics)	Ammonia	Glycols	DRO/GRO	MBAS	Sample Specific Notes / Special Instructions:
H-1	9/1/11	11:15 AM	X														X	X	X	X	X	X	X	X	X	X	
FH-1	9/1/11	8:40 AM	X																								
FPT-1	9/1/11	9:35 AM	X																								
S-1	9/1/11	10:15 AM	X																								
R-1	9/1/11	1:20 PM	X																								
R-2	9/1/11	1:40 PM	X																								
RD-1	9/1/11	2:10 PM	X																								
RB-1	9/1/11	2:45 PM	X																								
EB-1	9/1/11	3:35 PM	X																								
N-1	9/1/11	5:45 PM	X																								
D-1	9/1/11	6:15 PM	X														V	V	V	V	V	V	V	V	V	V	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: URS Corp	Date/Time: 9/1/11	Received by:	Company:	Date/Time:		
Relinquished by:	Company: URS Corp	Date/Time: 9/6/11 9:00 AM	Received by:	Company: TAL	Date/Time: 9/6/11 0900		
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:		

TAL 0018-1 (04/10)

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DIM0195975

DIM0195994

Login Container Summary Report

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
H-1	180-3644-A-1	Plastic 1 liter - unpreserved			
H-1	180-3644-B-1	Amber Glass 1 liter - Hydrochloric	2		
H-1	180-3644-C-1	Amber Glass 1 liter - Hydrochloric	2		
H-1	180-3644-D-1	Amber Glass 1 liter - Sulfuric Acid	2		
H-1	180-3644-E-1	Amber Glass 1 liter - Sulfuric Acid	2		
H-1	180-3644-F-1	Amber Glass 1 liter - unpreserved			
H-1	180-3644-G-1	Amber Glass 1 liter - unpreserved			
H-1	180-3644-H-1	Plastic 500ml - with Nitric Acid	2		
H-1	180-3644-I-1	Plastic 500ml - unpreserved			
H-1	180-3644-J-1	Plastic 250ml - with Sulfuric Acid	2		
H-1	180-3644-K-1	Voa Vial 40ml - unpreserved			
H-1	180-3644-L-1	Voa Vial 40ml - unpreserved			
H-1	180-3644-M-1	Voa Vial 40ml - unpreserved			
H-1	180-3644-N-1	Voa Vial 40ml - Hydrochloric Acid	p		
H-1	180-3644-O-1	Voa Vial 40ml - Hydrochloric Acid	↓		
H-1	180-3644-P-1	Voa Vial 40ml - Hydrochloric Acid			
H-1	180-3644-Q-1	Voa Vial 40ml - Hydrochloric Acid			
H-1	180-3644-R-1	Voa Vial 40ml - Hydrochloric Acid			
H-1	180-3644-S-1	Voa Vial 40ml - Hydrochloric Acid			
H-1	180-3644-T-1	Voa Vial 40ml - with Sodium	p		
H-1	180-3644-U-1	Voa Vial 40ml - with Sodium	↓		
H-1	180-3644-V-1	Voa Vial 40ml - with Sulfuric Acid			
H-1	180-3644-W-1	Voa Vial 40ml - with Sulfuric Acid			
FH-1	180-3644-A-2	Plastic 1 liter - unpreserved			
FH-1	180-3644-B-2	Amber Glass 1 liter - Hydrochloric	2		
FH-1	180-3644-C-2	Amber Glass 1 liter - Hydrochloric	2		
FH-1	180-3644-D-2	Amber Glass 1 liter - Sulfuric Acid	2		
FH-1	180-3644-E-2	Amber Glass 1 liter - Sulfuric Acid	2		
FH-1	180-3644-F-2	Amber Glass 1 liter - unpreserved			
FH-1	180-3644-G-2	Amber Glass 1 liter - unpreserved			
FH-1	180-3644-H-2	Plastic 500ml - with Nitric Acid	2		
FH-1	180-3644-I-2	Plastic 500ml - unpreserved			
FH-1	180-3644-J-2	Plastic 250ml - with Sulfuric Acid	2		
FH-1	180-3644-K-2	Voa Vial 40ml - unpreserved			
FH-1	180-3644-L-2	Voa Vial 40ml - unpreserved			
FH-1	180-3644-M-2	Voa Vial 40ml - unpreserved			

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
FH-1	180-3644-N-2	Voa Vial 40ml - Hydrochloric Acid	P		
FH-1	180-3644-O-2	Voa Vial 40ml - Hydrochloric Acid			
FH-1	180-3644-P-2	Voa Vial 40ml - Hydrochloric Acid			
FH-1	180-3644-Q-2	Voa Vial 40ml - Hydrochloric Acid			
FH-1	180-3644-R-2	Voa Vial 40ml - Hydrochloric Acid			
FH-1	180-3644-S-2	Voa Vial 40ml - Hydrochloric Acid			
FH-1	180-3644-T-2	Voa Vial 40ml - with Sodium			
FH-1	180-3644-U-2	Voa Vial 40ml - with Sodium			
FH-1	180-3644-V-2	Voa Vial 40ml - with Sulfuric Acid			
FH-1	180-3644-W-2	Voa Vial 40ml - with Sulfuric Acid			
FPT-1	180-3644-A-3	Plastic 1 liter - unpreserved			
FPT-1	180-3644-B-3	Amber Glass 1 liter - Hydrochloric	2		
FPT-1	180-3644-C-3	Amber Glass 1 liter - Hydrochloric	2		
FPT-1	180-3644-D-3	Amber Glass 1 liter - Sulfuric Acid	2		
FPT-1	180-3644-F-3	Amber Glass 1 liter - ~~unpreserved~~ sulfuric acid	2		
FPT-1	180-3644-G-3	Amber Glass 1 liter - unpreserved			
FPT-1	180-3644-H-3	Plastic 500ml - with Nitric Acid	2		
FPT-1	180-3644-I-3	Plastic 500ml - unpreserved			
FPT-1	180-3644-J-3	Plastic 250ml - with Sulfuric Acid	2		
FPT-1	180-3644-K-3	Voa Vial 40ml - unpreserved			
FPT-1	180-3644-L-3	Voa Vial 40ml - unpreserved			
FPT-1	180-3644-M-3	Voa Vial 40ml - unpreserved			
FPT-1	180-3644-N-3	Voa Vial 40ml - Hydrochloric Acid	P		
FPT-1	180-3644-O-3	Voa Vial 40ml - Hydrochloric Acid			
FPT-1	180-3644-P-3	Voa Vial 40ml - Hydrochloric Acid			
FPT-1	180-3644-Q-3	Voa Vial 40ml - Hydrochloric Acid			
FPT-1	180-3644-R-3	Voa Vial 40ml - Hydrochloric Acid			
FPT-1	180-3644-S-3	Voa Vial 40ml - Hydrochloric Acid			
FPT-1	180-3644-T-3	Voa Vial 40ml - with Sodium			
FPT-1	180-3644-U-3	Voa Vial 40ml - with Sodium			
FPT-1	180-3644-V-3	Voa Vial 40ml - with Sulfuric Acid			
FPT-1	180-3644-W-3	Voa Vial 40ml - with Sulfuric Acid	✓		
S-1	180-3644-A-4	Plastic 1 liter - unpreserved			
S-1	180-3644-B-4	Amber Glass 1 liter - Hydrochloric	2		
S-1	180-3644-C-4	Amber Glass 1 liter - Hydrochloric	2		
S-1	180-3644-D-4	Amber Glass 1 liter - Sulfuric Acid	2		
S-1	180-3644-E-4	Amber Glass 1 liter - Sulfuric Acid	2		
S-1	180-3644-F-4	Amber Glass 1 liter - unpreserved			
S-1	180-3644-G-4	Amber Glass 1 liter - unpreserved			

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Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
S-1	180-3644-H-4	Plastic 500ml - with Nitric Acid	2		
S-1	180-3644-I-4	Plastic 500ml - unpreserved			
S-1	180-3644-J-4	Plastic 250ml - with Sulfuric Acid	2		
S-1	180-3644-K-4	Voa Vial 40ml - unpreserved			
S-1	180-3644-L-4	Voa Vial 40ml - unpreserved			
S-1	180-3644-M-4	Voa Vial 40ml - unpreserved			
S-1	180-3644-N-4	Voa Vial 40ml - Hydrochloric Acid	ρ		
S-1	180-3644-O-4	Voa Vial 40ml - Hydrochloric Acid			
S-1	180-3644-P-4	Voa Vial 40ml - Hydrochloric Acid			
S-1	180-3644-Q-4	Voa Vial 40ml - Hydrochloric Acid			
S-1	180-3644-R-4	Voa Vial 40ml - Hydrochloric Acid			
S-1	180-3644-S-4	Voa Vial 40ml - Hydrochloric Acid			
S-1	180-3644-T-4	Voa Vial 40ml - with Sodium			
S-1	180-3644-U-4	Voa Vial 40ml - with Sodium			
S-1	180-3644-V-4	Voa Vial 40ml - with Sulfuric Acid			
S-1	180-3644-W-4	Voa Vial 40ml - with Sulfuric Acid			
R-1	180-3644-A-5	Plastic 1 liter - unpreserved			
R-1	180-3644-B-5	Amber Glass 1 liter - Hydrochloric	2		
R-1	180-3644-C-5	Amber Glass 1 liter - Hydrochloric	2		
R-1	180-3644-D-5	Amber Glass 1 liter - unpreserved			
R-1	180-3644-E-5	Amber Glass 1 liter - unpreserved			
R-1	180-3644-F-5	Amber Glass 1 liter - unpreserved			
R-1	180-3644-G-5	Amber Glass 1 liter - unpreserved			
R-1	180-3644-H-5	Plastic 500ml - with Nitric Acid	2		
R-1	180-3644-I-5	Plastic 500ml - unpreserved			
R-1	180-3644-J-5	Plastic 250ml - with Sulfuric Acid	2		
R-1	180-3644-K-5	Voa Vial 40ml - unpreserved			
R-1	180-3644-L-5	Voa Vial 40ml - unpreserved			
R-1	180-3644-M-5	Voa Vial 40ml - unpreserved			
R-1	180-3644-N-5	Voa Vial 40ml - Hydrochloric Acid	ρ		
R-1	180-3644-O-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-P-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-Q-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-R-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-S-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-T-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-U-5	Voa Vial 40ml - Hydrochloric Acid			
R-1	180-3644-V-5	Voa Vial 40ml - with Sulfuric Acid			
R-1	180-3644-W-5	Voa Vial 40ml - with Sulfuric Acid			

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
R-2	180-3644-A-6	Plastic 1 liter - unpreserved			
R-2	180-3644-B-6	Amber Glass 1 liter - Hydrochloric	2		
R-2	180-3644-C-6	Amber Glass 1 liter - Hydrochloric	2		
R-2	180-3644-D-6	Amber Glass 1 liter - Sulfuric Acid	2		
R-2	180-3644-E-6	Amber Glass 1 liter - Sulfuric Acid	2		
R-2	180-3644-F-6	Amber Glass 1 liter - unpreserved			
R-2	180-3644-G-6	Amber Glass 1 liter - unpreserved			
R-2	180-3644-H-6	Plastic 500ml - with Nitric Acid	2		
R-2	180-3644-I-6	Plastic 500ml - unpreserved			
R-2	180-3644-J-6	Plastic 250ml - with Sulfuric Acid	2		
R-2	180-3644-K-6	Voa Vial 40ml - unpreserved			
R-2	180-3644-L-6	Voa Vial 40ml - unpreserved			
R-2	180-3644-M-6	Voa Vial 40ml - unpreserved			
R-2	180-3644-N-6	Voa Vial 40ml - Hydrochloric Acid	P		
R-2	180-3644-O-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-P-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-Q-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-R-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-S-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-T-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-U-6	Voa Vial 40ml - Hydrochloric Acid			
R-2	180-3644-V-6	Voa Vial 40ml - with Sulfuric Acid			
R-2	180-3644-W-6	Voa Vial 40ml - with Sulfuric Acid			
RD-1	180-3644-A-7	Plastic 1 liter - unpreserved			
RD-1	180-3644-B-7	Amber Glass 1 liter - Hydrochloric	2		
RD-1	180-3644-D-7	Amber Glass 1 liter - Sulfuric Acid	2		
RD-1	180-3644-E-7	Amber Glass 1 liter - Sulfuric Acid	2		
RD-1	180-3644-F-7	Amber Glass 1 liter - unpreserved			
RD-1	180-3644-G-7	Amber Glass 1 liter - unpreserved			
RD-1	180-3644-H-7	Plastic 500ml - with Nitric Acid	2		
RD-1	180-3644-I-7	Plastic 500ml - unpreserved			
RD-1	180-3644-J-7	Plastic 250ml - with Sulfuric Acid	2		
RD-1	180-3644-K-7	Voa Vial 40ml - unpreserved			
RD-1	180-3644-L-7	Voa Vial 40ml - unpreserved			
RD-1	180-3644-M-7	Voa Vial 40ml - unpreserved			
RD-1	180-3644-N-7	Voa Vial 40ml - Hydrochloric Acid	P		
RD-1	180-3644-O-7	Voa Vial 40ml - Hydrochloric Acid			
RD-1	180-3644-P-7	Voa Vial 40ml - Hydrochloric Acid			
RD-1	180-3644-Q-7	Voa Vial 40ml - Hydrochloric Acid			

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
RD-1	180-3644-R-7	Voa Vial 40ml - Hydrochloric Acid	P		
RD-1	180-3644-S-7	Voa Vial 40ml - Hydrochloric Acid			
RD-1	180-3644-T-7	Voa Vial 40ml - with Sodium			
RD-1	180-3644-U-7	Voa Vial 40ml - with Sodium			
RD-1	180-3644-V-7	Voa Vial 40ml - with Sulfuric Acid			
RD-1	180-3644-W-7	Voa Vial 40ml - with Sulfuric Acid			
RV-1	180-3644-A-8	Plastic 1 liter - unpreserved			
RV-1	180-3644-B-8	Amber Glass 1 liter - Hydrochloric	2		
RV-1	180-3644-C-8	Amber Glass 1 liter - Hydrochloric	2		
RV-1	180-3644-D-8	Amber Glass 1 liter - Sulfuric Acid	2		
RV-1	180-3644-E-8	Amber Glass 1 liter - Sulfuric Acid	2		
RV-1	180-3644-F-8	Amber Glass 1 liter - unpreserved	4		
RV-1	180-3644-G-8	Amber Glass 1 liter - unpreserved			
RV-1	180-3644-H-8	Plastic 500ml - with Nitric Acid	2		
RV-1	180-3644-I-8	Plastic 500ml - unpreserved			
RV-1	180-3644-J-8	Plastic 250ml - with Sulfuric Acid	2		
RV-1	180-3644-K-8	Voa Vial 40ml - unpreserved			
RV-1	180-3644-L-8	Voa Vial 40ml - unpreserved			
RV-1	180-3644-M-8	Voa Vial 40ml - unpreserved			
RV-1	180-3644-N-8	Voa Vial 40ml - Hydrochloric Acid	P		
RV-1	180-3644-O-8	Voa Vial 40ml - Hydrochloric Acid			
RV-1	180-3644-P-8	Voa Vial 40ml - Hydrochloric Acid			
RV-1	180-3644-Q-8	Voa Vial 40ml - Hydrochloric Acid			
RV-1	180-3644-R-8	Voa Vial 40ml - Hydrochloric Acid			
RV-1	180-3644-S-8	Voa Vial 40ml - Hydrochloric Acid			
RV-1	180-3644-T-8	Voa Vial 40ml - with Sodium			
RV-1	180-3644-U-8	Voa Vial 40ml - with Sodium			
RV-1	180-3644-V-8	Voa Vial 40ml - with Sulfuric Acid			
RV-1	180-3644-W-8	Voa Vial 40ml - with Sulfuric Acid			
KDE-1	180-3644-A-9	Plastic 1 liter - unpreserved			
KDE-1	180-3644-B-9	Amber Glass 1 liter - Hydrochloric	2		
KDE-1	180-3644-C-9	Amber Glass 1 liter - Hydrochloric	2		
KDE-1	180-3644-D-9	Amber Glass 1 liter - unpreserved			
KDE-1	180-3644-E-9	Amber Glass 1 liter - unpreserved			
KDE-1	180-3644-F-9	Amber Glass 1 liter - unpreserved			
KDE-1	180-3644-G-9	Amber Glass 1 liter - unpreserved			
KDE-1	180-3644-H-9	Plastic 500ml - with Nitric Acid	2		
KDE-1	180-3644-I-9	Plastic 500ml - unpreserved			
KDE-1	180-3644-J-9	Plastic 250ml - with Sulfuric Acid	2		

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
KDE-1	180-3644-K-9	Voa Vial 40ml - unpreserved			
KDE-1	180-3644-L-9	Voa Vial 40ml - unpreserved			
KDE-1	180-3644-M-9	Voa Vial 40ml - unpreserved			
KDE-1	180-3644-N-9	Voa Vial 40ml - Hydrochloric Acid	P		
KDE-1	180-3644-O-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-P-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-Q-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-R-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-S-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-T-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-U-9	Voa Vial 40ml - Hydrochloric Acid			
KDE-1	180-3644-V-9	Voa Vial 40ml - with Sulfuric Acid			
KDE-1	180-3644-W-9	Voa Vial 40ml - with Sulfuric Acid			
N-1	180-3644-A-10	Plastic 1 liter - unpreserved			
N-1	180-3644-B-10	Amber Glass 1 liter - Hydrochloric	2		
N-1	180-3644-C-10	Amber Glass 1 liter - Hydrochloric	2		
N-1	180-3644-D-10	Amber Glass 1 liter - unpreserved			
N-1	180-3644-E-10	Amber Glass 1 liter - unpreserved			
N-1	180-3644-F-10	Amber Glass 1 liter - unpreserved			
N-1	180-3644-G-10	Amber Glass 1 liter - unpreserved			
N-1	180-3644-H-10	Plastic 500ml - with Nitric Acid	2		
N-1	180-3644-I-10	Plastic 500ml - unpreserved			
N-1	180-3644-J-10	Plastic 250ml - with Sulfuric Acid	2		
N-1	180-3644-K-10	Voa Vial 40ml - unpreserved			
N-1	180-3644-L-10	Voa Vial 40ml - unpreserved			
N-1	180-3644-M-10	Voa Vial 40ml - unpreserved			
N-1	180-3644-N-10	Voa Vial 40ml - Hydrochloric Acid	P		
N-1	180-3644-O-10	Voa Vial 40ml - Hydrochloric Acid			
N-1	180-3644-P-10	Voa Vial 40ml - Hydrochloric Acid			
N-1	180-3644-Q-10	Voa Vial 40ml - Hydrochloric Acid			
N-1	180-3644-R-10	Voa Vial 40ml - Hydrochloric Acid			
N-1	180-3644-S-10	Voa Vial 40ml - Hydrochloric Acid			
N-1	180-3644-T-10	Voa Vial 40ml - with Sodium		0133 44014	
N-1	180-3644-U-10	Voa Vial 40ml - with Sodium		0133 44014	
N-1	180-3644-V-10	Voa Vial 40ml - with Sulfuric Acid			
N-1	180-3644-W-10	Voa Vial 40ml - with Sulfuric Acid			
D-1	180-3644-A-11	Plastic 1 liter - unpreserved			
D-1	180-3644-B-11	Amber Glass 1 liter - Hydrochloric	2		
D-1	180-3644-C-11	Amber Glass 1 liter - Hydrochloric	2		

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
D-1	180-3644-D-11	Amber Glass 1 liter - Sulfuric Acid	2		
D-1	180-3644-E-11	Amber Glass 1 liter - unpreserved			
D-1	180-3644-F-11	Amber Glass 1 liter - unpreserved			
D-1	180-3644-G-11	Amber Glass 1 liter - unpreserved			
D-1	180-3644-H-11	Plastic 500ml - with Nitric Acid	2		
D-1	180-3644-I-11	Plastic 500ml - unpreserved			
D-1	180-3644-J-11	Plastic 250ml - with Sulfuric Acid	2		
D-1	180-3644-K-11	Voa Vial 40ml - unpreserved			
D-1	180-3644-L-11	Voa Vial 40ml - unpreserved			
D-1	180-3644-M-11	Voa Vial 40ml - unpreserved			
D-1	180-3644-N-11	Voa Vial 40ml - Hydrochloric Acid	2		
D-1	180-3644-O-11	Voa Vial 40ml - Hydrochloric Acid			
D-1	180-3644-P-11	Voa Vial 40ml - Hydrochloric Acid			
D-1	180-3644-Q-11	Voa Vial 40ml - Hydrochloric Acid			
D-1	180-3644-R-11	Voa Vial 40ml - Hydrochloric Acid			
D-1	180-3644-S-11	Voa Vial 40ml - Hydrochloric Acid			
D-1	180-3644-T-11	Voa Vial 40ml - with Sodium		013344CW	
D-1	180-3644-U-11	Voa Vial 40ml - with Sodium		013346W	
D-1	180-3644-V-11	Voa Vial 40ml - with Sulfuric Acid		SR0032-11	
D-1	180-3644-W-11	Voa Vial 40ml - with Sulfuric Acid		SR0032-11	
TRIP BLANK	180-3644-A-12	Voa Vial 40ml - Hydrochloric Acid			
TRIP BLANK	180-3644-B-12	Voa Vial 40ml - Hydrochloric Acid			
TRIP BLANK	180-3644-C-12	Voa Vial 40ml - Hydrochloric Acid	2		

APPENDIX D

Laboratory Case Narrative

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-3644-1

Job Description: Focused Site Assessment

For:
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

Attention: Mr. James Pinta, Jr.

Approved for release.
Carrie L Gamber
Project Manager II
10/5/2011 2:09 PM

Carrie L Gamber
Project Manager II
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10/05/2011

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CABOT-EPA 001621

CASE NARRATIVE

Client: URS Corporation

Project: Focused Site Assessment

Report Number: 180-3644-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 09/06/2011; the samples arrived in good condition, properly preserved and on ice.

The laboratory received a broken 1-liter bottle for sample FPT-1 (180-3644-3).

The laboratory did not receive sulfuric acid preserved vials for samples FPT-1 (180-3644-3) and D-1 (180-3644-11). An aliquot was taken from an un-preserved 1-liter amber glass bottle and preserved for TOC.

No Sodium thiosulfate vials were received for samples FPT-1 (180-3644-3), D-1 (180-3644-11), and N-1 (180-3644-10). An aliquot was taken from an un-preserved 1-liter amber glass bottle and preserved for method 8011.

The DRO volume for sample FPT-1 (180-3644-3) was received in a 1l-liter plastic container.

LOW LEVEL VOLATILE ORGANIC COMPOUNDS
Chloroform, Naphthalene and Toluene were detected in method blank MB 180-14017/3 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

8011 GAS CHROMATOGRAPHY
No difficulties were encountered during the EDB analyses.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
No difficulties were encountered during the semivolatiles analyses.

GAS RANGE ORGANICS
GRO (C6-C10) was detected in method blank MB 480-30437/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

DISSOLVED GASES
Due to the concentration of target compounds detected, samples H-1 (180-3644-1)[1000X], FH-1 (180-3644-2)[20X], R-1 (180-3644-5)[1000X], R-1 (180-3644-5)[200X], R-2 (180-3644-6)[100X], R-2 (180-3644-6)[1000X] and KDE-1 (180-3644-9)[10X] were analyzed at a dilution. The reporting limits have been adjusted accordingly.

GLYCOLS
The matrix spike and matrix spike duplicate of sample H-1 (180-3644-1) recovered outside of the control limits for Triethylene Glycol.

DIESEL RANGE ORGANICS
No difficulties were encountered during the DRO analyses.

METALS
The serial dilution of sample H-1 (180-3644-1) was outside of the percent difference control limits for several metals.

The method blanks had analytes detected at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The sodium concentrations found in the continuing calibration blanks three thru eight (CCB3 thru CCB8) were greater than the reporting limit (100ug/l) All associated samples bracketed by these CCB's had sodium concentrations at least 100x greater than the CCB concentrations. The CCB concentrations were more than likely caused by "memory effect" and no positive bias in the results is suspected

The manganese concentrations found in the continuing calibration blanks five, seven and eight (CCB5, CCB7 and CCB8) were greater than the reporting limit (0.5ug/l). All associated samples bracketed by these CCB's had manganese concentrations at least 10x greater than the CCB concentrations. The CCB concentrations were more than likely caused by "memory effect" and no positive bias in the results is suspected.

GENERAL CHEMISTRY

pH is a field parameter. Laboratory pH analysis was completed at the request of the client.

The samples were analyzed outside of the holding time for MBAS.

Due to the matrix, the initial volume used for the following sample deviated from the standard procedure for method 2540D: S-1 (180-3644-4). The reporting limits (RLs) have been adjusted proportionately.

The method blanks had analytes detected at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.